



## REMARKS

Applicants respectfully request reconsideration of this application in view of the foregoing amendments and the following remarks.

### Rejection Under 35 U.S.C. § 112, first paragraph

Claims 1-21 stand rejected under 35 U.S.C. § 112, first paragraph as “containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.”

Applicants have amended the claims that recite fragments of IVIG to list species of IVIG fragments. Support for this amendment is found, e.g., at specification page 4, lines 19-21.

As noted by the Examiner, applicants have demonstrated that  $F(ab')_2$  fragments are effective in inhibiting metastasis of melanoma. (See, Example 3, pages 13-14 of specification). Applicants have further shown in the accompanying Fishman Declaration, filed in a parent application, that commercially available preparations of Fc fragments of IVIG are also effective in inhibiting metastasis of solid tumors (See Fishman Declaration of April 8, 1997 filed in parent application 08/487,803, a copy of which is provided herewith). Applicants’ disclosure and the demonstrated effectiveness of various fragments of IVIG entitle applicants to claim both intact IVIG and specific fragments of IVIG.

Based on the results shown in the Fishman Declaration, one of skill in the art would be placed in possession of the claimed invention without the need for undue

experimentation. Specifically, one of skill in the art would reasonably expect that administration of the claimed specific fragments of IVIG according to applicants' invention would achieve the desired results with respect to inhibiting metastasis of lymphoma or treating lymphoma.

For the above reasons, applicants respectfully request that the Examiner withdraw the rejection of claims 1-21 under 35 U.S.C. § 112.

#### Rejections Under § 102(b)

The Examiner has rejected claims 1-3, 7-10, 12-14 and 17-20 under 35 U.S.C. § 102(b) based on several documents. In particular, the Examiner contends that certain of the rejected claims are anticipated by three references -- Chapel et al.,\* Morell et al.,\*\* and Besa et al.\*\*\* Applicants traverse.

The Examiner's arguments concerning these references are based exclusively on the concept of "inherency," a concept that has very limited applicability under § 102. "Inherency is established only when a single prior art reference discloses, expressly or under principles of inherency, each and every element of the claimed invention" Lewmar Marine, Inc. v. Barient, Inc., 827 F.2d 744, 747 (Fed. Cir. 1987).

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\* Chapel et al., "A Crossover Study Of The Use Of Intravenous Immunoglobulin For Prophylaxis Against Infection In Patients With Chronic Lymphocytic Leukemia Or Low Grade Non-Hodgkins Lymphoma," Clin. Res. 36, pp. 407A (1988).

\*\* A. Morell and S. Barandun, "Prophylactic and Therapeutic Use of Immunoglobulin for Intravenous Administration in Patients with Secondary Immunodeficiencies Associated with Malignancies," Pediat. Infect. Dis. J. 7, pp. S87-S91 (1988).

\*\*\* Besa et al., Am. J. Med. 84, pp. 691-698 (1988).

Furthermore, "[i]nherency ... may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient [to establish anticipation]" In re Oelrich, 666 F.2d 578, 581 (CCPA 1981). See also Glaxo Inc. v. Novopharm Ltd. 52 F.3d 1043, 1047 (Fed. Cir. 1995).

Several elements of applicants' amended claims are neither expressly nor inherently disclosed in any of Chapel et al., Morell et al., or Besa et al.. In particular, the cited references (1) do not disclose the use of fragments, (2) do not disclose the use of IVIG in any patients having metastatic cancer, and (3) disclose only particular dosages of IVIG administered intravenously. Therefore, in the absence of an affirmative identification of, or a certainty of the "inherent" presence of, these elements in any of the three references, the references cannot be used to bar claims that include one or more of those elements.

Each of the amended claims submitted herewith includes one or more elements that are not disclosed in any of the cited references. In particular, claims 1-11 are directed to the inhibition of metastasis. None of the references disclose, inherently or otherwise, inhibition of metastasis. Therefore, these references cannot anticipate any of claims 1-11.

With respect to claims 1-2 and 7-9, Chapel et al. does not indicate that there was any metastasis occurring in the patients that received IVIG. Therefore, there is no evidence that IVIG was inherently used in the inhibition of metastasis in Chapel et al. With respect to claims 12-13 and 18-19, applicants have canceled these claims.

With respect to claims 1-3 and 7-10, Morell et al. does not indicate that there was any metastasis occurring in the patients that received IVIG. Therefore, there is no evidence that IVIG was inherently used in the inhibition of metastasis in Morell et al. With respect to claims 12-14 and 18-20, applicants have canceled these claims.

With respect to claims 1-3 and 6-9, Besa et al. does not indicate that there was any metastasis occurring in the patients that received IVIG. Therefore, there is no evidence that IVIG was inherently used in the inhibition of metastasis in Besa et al.

With respect to claims 12-14 and 17-19, applicant has canceled these claims.

Thus, applicants respectfully request that the Examiner withdraw the rejection of claims 1-3 and 7-10 under 35 U.S.C. § 102(b).

#### Rejections Under § 103

The Examiner has rejected claims 1-3, 5-14 and 16-21 under 35 U.S.C. § 103(a) based on several documents. In particular, the Examiner contends that the rejected claims are unpatentable over Morell et al. or Besa et al. in view of Cafiero et al., Webb et al. and Way. Applicants traverse.

The cited references all differ from the claimed invention in that none of the cited references teach or suggest that administration of IVIG is useful for inhibiting metastasis of lymphoma or for the treatment of lymphoma. Nor do any of the cited references suggest a combination with other references to supply the missing information.

A skilled artisan, searching for methods of inhibiting metastasis or for treating lymphoma, armed with the above documents, would have absolutely no

motivation whatsoever to look at any of the documents at all, let alone combine the documents in the manner suggested by the Examiner to arrive at the invention of claims 1-3, 5-14 or 16-21. The Examiner's combination of these references is improper and ineffective, since none of the references even mention the inhibition of metastasis or treatment of lymphoma, to which applicant's claims are directed.

A retrospective view of inherency is not a substitute for some teaching or suggestion which supports the selection and use of the various elements in the particular claimed combination. That which may be inherent is not necessarily known. Obviousness cannot be predicated on what is unknown. In re Newell, 891 F.2d 899, 901, 13 USPQ2d 1248, 1250 (Fed.Cir. 1989).

Webb et al. discusses therapies for lymphoma treatment **other than IVIG**. Morell et al., Besa et al., Cafiero et al. and Way each discuss the use of IVIG for purposes **other than inhibiting metastasis of lymphoma or treating lymphoma**. None of these references teach or suggest that the IVIG used to prevent secondary infections had any role in the inhibition of metastasis of lymphoma or in the treatment of lymphoma. An inherent use of IVIG in patients with lymphoma cannot render applicants' invention obvious. The use of IVIG in the inhibition of lymphoma metastasis or for the treatment of lymphoma was not clinically measured in any of these references.

Thus, applicants respectfully request that the Examiner withdraw the rejection of claims 1-3 and 5-11 under 35 U.S.C. § 103(a).



Double Patenting

Claims 1-21 stand rejected as unpatentable over issued claims 1-18 of U.S. patent 5,965,130 and issued claims 1-10 of U.S. patent 5,562,902 under the obviousness-type double patenting doctrine. Applicants stand ready to submit a terminal disclaimer in compliance with 37 C.F.R. § 1.321(c) to overcome these rejections.

For all of the above reasons, applicants submit that claims 2-11, amended claim 1 and new claims 22- 29 are now in condition for allowance and request that this application be passed to issue. However, if the Examiner believes that another interview would facilitate the resolution of any outstanding issue, the Examiner is kindly requested to contact the undersigned.

Respectfully submitted,



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